

REMARKS

Review and reconsideration on the merits are requested.

Status of Claims

Claims 1-13 are pending.

Claims 9-13 are rejected. Claims 1-8 are withdrawn from consideration.

Formalities

Applicants appreciate the Examiner returning two completed PTO/SB/08 forms (filed March 23 and June 3, 2005).

Applicants also appreciate the Examiner acknowledging receipt of a certified copy of the priority document (there is one priority document).

The Prior Art

US 5,028,330 Caronia et al (Caronia), US 5,300,536 Takahashi et al. (Takahashi), US 3,142,715 Burk (Burk); NPL Yaws' Handbook of Thermodynamic and Physical Properties by Yaws' (Yaws').

The Rejection

Claims 9-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Caronia in view of Takahashi and Burk as evidenced by Yaws'.

The Examiner's position is set forth in the Action and will not be repeated here except as necessary to an understanding of Applicants' traversal which is now presented.

Applicants first focus on Takahashi.

Takahashi discloses a photopolymerizable composition having a composition somewhat similar to that of the sealant composition of the present invention. Takahashi does disclose that the Takahashi photopolymerizable composition is useful as a sealant.

However, referring to Caronia, it is not clear from Caronia exactly what the nature of the photo-initiated polymer is, rather, Caronia merely discloses curing using ultraviolet radiation, quite different from the sealant composition of the present invention. Caronia also does not disclose a molding die comprising a material which has a specific solubility parameter.

In distinction to Caronia, again returning to Takahashi, Takahashi discloses a sealant as a possible use of the photopolymerizable composition of Takahashi. However, use as a sealant is simply one of the many various uses disclosed in Takahashi at, for example, col. 17, lines 46-56. It is to be noted that Takahashi discloses various and quite different uses such as a coating, an adhesive, a filter, a sealing agent, and a material for forming shaped articles. While the sealing agent of Takahashi can have various uses, Takahashi is not very clear or precise as to what uses are contemplated for the Takahashi sealing agent.

Further commenting upon Takahashi, the compositions in the Examples of Takahashi contain TMPA as main component. According to attached Document 1, "ARONIX M-309" corresponds to TMPA. Please see the pages 2 and 5 of Document 1 (marked-up portions), especially page 5 which describes that the viscosity of "ARONIX M-309" is 80 to 140 mPa•S, which is much lower than that in the claim 7 of the present application. It is to be specifically noted that Takahashi does not disclose any preferred viscosity for the Takahashi composition in any fashion. Again, see claim 7.

Considering the overall teaching of Caronia and Takahashi, it is respectfully submitted that one of ordinary skill in the art would not be motivated to use the photopolymerizable composition of Takahashi as a sealant in the filter element having a specific structure as per Caronia, i.e., that one of ordinary skill in the art would not find it obvious to combine Caronia and Takahashi.

As a final point, Applicants wish to most strongly emphasize that Takahashi does not disclose or suggest in any fashion the sealant composition according to claim 7 of the present application.

With respect to Burk, even if the interpolymer of Burk is transparent to visible light, Burk merely discloses the use of the Burk interpolymer in a molding, and neither discloses nor suggests any possibility or desirability of using the Burk interpolymer on or in a filter element.

Applicants thus respectfully submit that one of ordinary skill in the art would not find it obvious to use the interpolymer of Burk in the method of Caronia.

Applicants respectfully submit that exactly what is meant by an "interpolymer" of hexafluoropropylene and tetrafluoroethylene in Burk is extremely unclear, i.e., it is not clear from Burk if this means a copolymer or a polymer blend.

With respect to Yaws', Applicants submit herewith publications which establish that the solubility parameter of a polymer can be obtained even by calculation. While the F value of hexafluoropropylene is unknown, and the solubility parameter of a copolymer cannot be calculated, it is possible that the solubility parameter of the Burk material would fall within the solubility parameter range of the present claims.

Consideration of the above amendments and withdrawal is requested.

Claims Rejections 35 U.S.C. § 112

With respect to the fact that claim 9 does not provide units for the solubility parameter, Applicants use the following units for solubility parameter in claim 9 (cal/cm^3) $^{1/2}$ mol^{-1} .

Applicants submit here Document 2 and Document 3 in support of their position.

With respect to "chrysanthemum-like element", this term is well known and accepted by those skilled in the art. For example, see US patent 6,843,819 attached hereto at col 7, line 6.

Withdrawal of the rejections Under 35 U.S.C. § 112, is respectfully requested.

The Documents submitted are as follows:

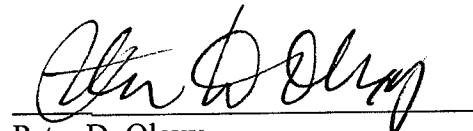
Document 1: ARONIX CATALOGUE, issued by TOAGOSEI CHEMICAL INDUSTRY CO., LTD. on July 1, 1993.

Document 2: Journal of Paint Technology, p76-118, Vol 42 (1970).

Document 3: Journal of the Adhesion Society of Japan, p51-54, Vol. 22 (1986).

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Respectfully submitted,



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